

AREA CALCULATION FOR SOURCE 1

The area of source 1 was calculated based on subsurface soil samples S51, S52, S53, S54 and S55 collected from the Beck's Lake Site by IDEM, These subsurface soil samples were found to contain hazardous waste constituents. Figure 2 of the documentation record package was utilized to calculate the area of Source 1.

The area bounded by subsurface soil samples S51, S52, S53, S54 and S55 was utilized to determining the area of Source 1. The bounded area was divided into two triangles. These triangles are shown on attached figure as Triangle A and Triangle B. Figure 2 utilized to calculate the Area for Source 1 is attached.

The estimated height and base for each area was determined as below:

Area A – Estimated Height = 1-inch * 300-feet (scale) = 300 feet.

Estimated Base = 2.1-inch * 300-feet (scale) = 630 feet.

Area B – Estimated Height = 0.5-inch * 300-feet (scale) = 150 feet.

Estimated Base = 2.1-inch * 300-feet (scale) = 630 feet.

Estimated Area A = $\frac{1}{2} * \text{Base} * \text{Height}$

$$= \frac{1}{2} * 300 * 630 = 94,500 \text{ square feet}$$

Estimated Area B = $\frac{1}{2} * \text{Base} * \text{Height}$

$$= \frac{1}{2} * 150 * 630 = 47,250 \text{ square feet}$$

Total Source Area 1 = Area A + Area B = 94,500 + 47,250

= 141,750 square feet.

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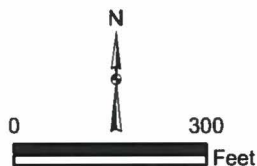
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Legend

- AOC Sample Locations (S06, S08, and S14)
- Source 1 Sample Locations (S51, S52, S53, S54, and S55)



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Figure 2
Source 1 and AOC A
Beck's Lake HRS
South Bend, St Joseph County, Indiana

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